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May 11, 2020

May 12, 2020

Christopher McGoldrick
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30 Providence Road
Grafton, MA 01519

Planning Board
Grafton, MA

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**Subject: Providence Village
274 Providence Road
Special Permit and Site Plan Review**

Exhibit 12

Dear Chris:

We received the following documents on March 19, 2020:

- Plans entitled "Providence Village", a Condominium Site Plan, in Grafton, Massachusetts dated February 26, 2020, prepared by Guerriere & Halnon, Inc. for Providence Street Village, Inc. (6 sheets)
- Bound document entitled "Providence Village," 274 Providence Street, Grafton, MA, Narrative, undated, prepared by Guerriere & Halnon, Inc.
- Documents entitled Application for Special Permit and Application for Site Plan Approval dated March 6, 2020 for property at 274 Providence Road.
- Bound document entitled Stormwater Report "Providence Village", 274 Providence Road, Grafton, MA dated February 26, 2020, prepared by Guerriere & Halnon, Inc. for Providence Street Village Inc.

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' and supporting documents' conformance with applicable "Grafton Zoning By-Law" amended through October 21, 2019; Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and standard engineering practices. GEI was authorized to proceed with this review on April 15, 2020. As part of our review GEI visited the site on May 6, 2020.

Our comments follow:

Zoning By-Law

1. GEI has no issues with compliance with the Grafton Zoning By-Law except as noted in the following comments.
2. The plans need to identify that the site is located within the Water Supply Protection Overlay District. (§1.3.3.3.d.7)
3. The proposed amount of impervious cover is approximately 47%, which exceeds the allowable 25%. Whereas the plans propose treatment and subsurface recharge of the

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collected stormwater, GEI has no issue relative to the amount of proposed impervious cover. (§7.5.E)

4. The approximate locations of buildings, driveways and parking areas within two hundred feet of the property lines need to be shown on the plans. (§1.3.3.3.d.11)
5. GEI has no issues with the use of one-foot contour intervals. (§1.3.3.3.d.12)
6. The plans need to include lot coverage calculations showing percentages of buildings, pavement and open space/landscaped areas. (§1.3.3.3.d.15)
7. Parking calculations need to be included on the plans. The plans need to be clear relative to the number of bedrooms per dwelling unit and the location(s) and number of parking spaces per dwelling unit. (§1.3.3.3.d.16 & §12.7.6)
8. Earth filling is proposed on the site. The plans need to include an estimate of the fill volume. (§1.3.3.3.d.17)
9. The plans show three-foot deep by eight-foot wide rectangles in the driveways attached to the dwelling units. If these rectangles represent the front wall of the garages, then the driveway lengths will only be seventeen feet, which is too short. To keep parked vehicles from protruding into the "road," the driveway length should be no less than 20 feet, with a minimum length of 22 feet preferable. (§1.3.3.3.d.19)
10. The plans need to address landscaping. No landscaping is proposed. (§1.3.3.3.d.21 & §12.9.2)
11. The plans need to address the location of the erosion control barriers, the location of a stabilized construction entrance and provisions for dust control. (§1.3.3.3.d.29)
12. GEI defers to the Planning Board and/or Town staff whether the proposed building location complies with the front yard setback requirement in the Village & Neighborhood Mixed Use District (VMU) regulations for attached single family dwellings. The plans propose off-street parking, which seems reasonable, but the regulations indicate minimum and maximum required front yard setbacks of 5 feet and 15 feet, respectively, and the sketch that accompanies the regulation appears to show on-street parking. (§12.6.1 Subsection 2.4)
13. The plans need to identify the locations of outdoor amenity space. (§12.6.1 Subsection 2.7)

Hydrology & MassDEP Stormwater Management

14. GEI reviewed the hydrology computations and found them to be in order except as noted in the following comment.
15. In the post-development hydrology calculations, GEI disagrees with the entire site (Subcatchment 2S) being modeled as flowing to the infiltration system. Based upon the topographic contours, runoff from the grass areas near the perimeter of the site won't be collected by the drainage system.
16. Compliance with MassDEP Stormwater Handbook appears to be reasonable provided that the following comment is addressed.

17. Calculations need to be submitted to demonstrate that a minimum of 80% of Total Suspended Solids (TSS) has been removed by the treatment train.

General Engineering Comments

18. Based upon the existing topographic contours on Sheet 1, topography on the Town's GIS and upon visual observations during my site visit, stormwater runoff from the abutting property at 14 Main Street flows onto the project site, and runoff from the project site flows toward abutting property at 268 – 270 Providence Road. The flow path from 14 Main Street must not be blocked. On Sheet 2, the proposed topographic contours west of the building will essentially result in earth fill be placed up to the property line. A means needs to be provided to maintain a flow path away from 14 Main Street and across the site.
19. Sheet 2 needs to identify the layout and grading of the wheelchair ramps, and approaches if approaches are necessary, where the driveway to Main Street crosses the Main Street sidewalk. The wheelchair ramp construction detail on Sheet 3 will need to be representative of the layout added to Sheet 2.
20. At the intersection radii, sloped granite curbing is proposed. It is GEI's understanding that the Town of Grafton requires vertical granite curbing at entrance radii.
21. On Sheet 2, there needs to be a proposed 101 topographic contour at the southeastern side of site. The proposed 102 contour crosses the existing 101 contour in the vegetative strip between the roadway and sidewalk. The engineer needs to review and revise as necessary.
22. The Precast Concrete Drain Manhole construction detail on Sheet 3 should include an invert channel, which could be constructed of concrete or clay sewer brick.
23. On Sheet 1, the Providence Road edge-of-pavement and the Main Street edge-of-pavement and sidewalk need to be added.

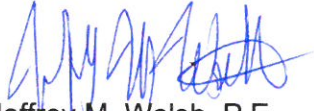
General Comments

24. There are a few instances where the plans refer to non-applicable towns' standards. For example, on Sheet 3 a note under "Precast Drain Manhole" refers to the Town of Hopkinton. Also, on Sheet 5 under the construction sequence, Note 3 refers to the Town of Sutton Conservation Commission. The engineer needs to review and revise as necessary.
25. GEI understands that the South Grafton Water District and the Grafton Sewer Department will review the plans relative to their respective service connections.
26. GEI understands that the Providence Road is under MassDOT jurisdiction and will as such the applicant will be required to obtain a MassDOT access permit.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Principal

cc: Dan Hazen; Guerriere & Hanlon, Inc.